

- 100-9006160
1. A digital audio/video production system adapted for use with an on-line video editing facility, the production system comprising:
 - a digital video recorder capable of simultaneously recording information representative of the same program source material, including correlated edit-time-code information, onto first and second removable storage media in first and second formats, respectively, the information in the first format being data-compressed relative to the information in the second format;
 - a programmed personal computer configured to receive the first removable storage medium, enabling an operator to edit the information representative of the program source material in the first format in off-line fashion so as to develop an edit decision list; and
 - means to transfer the edit decision list to an on-line video editing facility, the on-line editing facility being further configured to receive the second removable storage medium, whereby an operator of the on-line facility may edit the program source material in the second format using the edit decision list to create a final video production.
2. The digital video production system of claim 1, wherein the information in the second format is non-compressed.
 3. The digital video production system of claim 1, wherein the digital video recorder forms part of a camcorder.
 4. The digital video production system of claim 1, wherein the first removable medium is a magnetic hard disk.
 5. The digital video production system of claim 1, wherein the first removable medium is an optical disk.
 6. The digital video production system of claim 1, wherein the first removable medium is a magneto-optical disk.
 7. The digital video production system of claim 1, wherein the second removable medium is a tape drive.
 8. The digital video production system of claim 1, including digital audio and video program data which are interleaved.
 9. The digital video production system of claim 1, the means to transfer the edit decision list to the on-line video

editing facility including means to record the edit decision list onto a third removable storage medium.

10. The method of producing a final video program, comprising the steps of:

providing video program source material in first and 5 second digital formats, the material in the first format being compressed relative to the material in the second format;

recording the material in the first and second formats, respectively, onto first and second removable storage 10 media along with correlated edit-time-code information;

interfacing the first storage medium to an off-line video editing system to develop edit decision information;

transferring the edit decision list to an on-line video 15 editing system;

accessing the program material in the second storage medium using the on-line video editing system; and

editing the material in the second format on the second storage medium in accordance with the edit decision 20 list to produce a final video program.

11. The method of claim 10, the second format being a non-compressed format.

12. A digital video production system adapted to deliver program material and an accompanying edit decision list to 25 an on-line video editing facility for the purpose of creating a final program, the system comprising:

digital video recording apparatus, including:

an input to receive a video program,

means to digitally compress the program in accordance 30 with more than one compression ratio,

an interface to a first removable storage medium,

an interface to a second removable storage medium, and

means no simultaneously record the video program 35 onto the first removable storage medium at a first compression ratio and onto the second removable storage medium at a second compression ratio, the first compression ratio being greater than the second; and

an off-line digital video editing system, including:

an interface to receive the first removable storage medium.

a display to review portions of the video program, enabling a user to make edit decisions concerning the 45 program, and

an interface to a third removable storage medium to store a list of the edit decisions,

whereby an on-line video editing facility, upon receiving 50 the second and third storage medium, may be used to produce a final, edited version of the program in accordance with the decision list.

13. The digital video production system of claim 12, wherein the second compression ratio is zero.

14. The digital video production system of claim 12, 55 wherein the off-line digital video editing system forms part of a programmed personal computer.

15. The digital video production system of claim 12, wherein the digital video recorder forms part of a camcorder.

16. The digital video production system of claim 12, 60 wherein the first removable medium is a magnetic disk drive.

17. The digital video production system of claim 12, wherein the first removable medium is an optical disk.

18. The digital video production system of claim 12, 65 wherein the first removable medium is a magneto-optical disk.

19. The digital video production system of claim 12, wherein the second removable medium is a tape drive.

20. The digital video production system of claim 12, including interleaved digital audio and video program data are interleaved.

21. The digital video production system of claim 12, wherein the program includes separately recorded audio and video portions.

22. A digital video recording apparatus adapted or use with an on-line video editing facility and a personal computer configured to perform off-line editing, including edit-list development, the apparatus comprising:

 - a camera outputting information representative of a video program;
 - means to digitally compress the program information at a plurality of compression ratios;
 - a removable disk drive to store a highly compressed version of the program information suitable for off-line editing using the personal computer; and
 - a removable tape drive to store a less compressed version of the program information suitable for on-line editing; both versions of the program being stored with correlated edit-time-code information, thereby enabling the on-line editing to use the edit list developed during off-line editing.

23. The digital video recording apparatus of claim 22, wherein the camera, means to digitally compress the program at a plurality of compression ratios, removable disk drive, and removable tape drive are all integral to a camcorder.

24. A digital audio/video production system, comprising:
 - (a) digital video recording apparatus, including:
 - an input to receive a video program,
 - first and second removable digital storage media, and
 - means to simultaneously record the program, including correlated edit-time-code information, onto the first and second removable storage media in first and second formats, respectively, the first format being data-compressed relative to the information in the second format;
 - (b) a first video editing system, including:
 - means to receive the first removable storage medium, and
 - controls enabling an operator to edit the program in the first format and develop a set of edit decision directives; and
 - (c) a second video editing system, including:
 - means to receive the second removable storage medium,
 - means to receive the edit decision directives, and
 - means to edit the program information in the second format in accordance with the edit decision directives to create a final video production.

25. The digital audio/video production system of claim 24, wherein the digital video recording apparatus includes means to receive a plurality of the first removable storage media.

26. The digital audio/video production system of claim 24, wherein the second video editing system includes means to receive a plurality of the second removable storage media, wherein the edit decision directive being applicable to all of the second removable storage media received.

27. The digital audio/video production system of claim 26, wherein the digital video recording apparatus forms part of a camcorder.

28. The digital audio/video production system of claim 26, wherein the first video editing system forms part of a programmed personal computer.

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29. The digital audio/video production system of claim
26, wherein the first removable digital storage medium is a
magnetic disk.
30. The digital audio/video production system of claim
26, wherein the first removable digital storage medium is an 5
optical disk.
31. The digital audio/video production system of claim
26, wherein the first removable digital storage medium is a
magneto-optical disk.
32. The digital audio/video production system of claim 10
26, wherein the first removable digital storage medium is a
semiconductor memory.
33. The digital audio/video production system of claim
24, wherein the second removable digital storage medium is
a magnetic tape. 15
34. A video production method, comprising the steps of:
simultaneously recording information representative of a
video program, plus correlated edit-time-code informa-
tion, onto first and second removable digital storage
media in first and second formats, respectively, the
program information in the first format being data-
compressed relative to the program information in the
second format; 20
receiving the first removable storage medium at a first
video editing facility and editing the program informa-
tion at the first facility in the first format to develop a
series of edit decision directives based upon the edit-
time-code information; and 25

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- receiving the second removable storage medium and edit decision directives at a second video editing facility and editing the program information at the second facility in the second format in accordance with the edit decision directives so as to create a final video production.
5. The video production method of claim 34, further including the step of recording the final video production onto a third removable storage medium at the second video editing facility.
10. The video production method of claim 34, further including the step of outputting the final video production as the program information is edited in the second format in accordance with the edit decision directives.
15. The video production method of claim 34, wherein the step of editing the program information at the second facility further includes the step of adding audio special effects in the final video production.
20. The video production method of claim 34, wherein the step of editing the program information at the second facility further includes the step of adding video special effects in the final video production.
25. The video production method of claim 38, wherein the step of adding video special effects includes the step of adding titling.

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40. (New) Video recording apparatus, comprising:
an input for receiving video program source material;
a video recorder in communication with the input for
simultaneously recording information representative of the video
program source material, including correlated edit-time-code
information, onto first and second storage media, wherein the first
storage medium is randomly addressable, and the second storage
medium is serially addressable.

41. (New) The apparatus of claim 40, wherein the second
storage medium is a video tape.

42. (New) The apparatus of claim 40, wherein the video
recorder forms part of a camcorder.

43. (New) The apparatus of claim 40, further including
means for receiving scripting information.

44. (New) The apparatus of claim 43, wherein the means
for receiving the scripting information forms part of the video
recorder.

45. (New) The apparatus of claim 43, further including an
editing facility for receiving the recorded video program, and
wherein the means for receiving the scripting information forms
part of the editing facility.

46. (New) The apparatus of claim 40, further including
means for receiving camera-control information.

47. (New) The apparatus of claim 46, wherein the means for receiving the camera-control information forms part of the video recorder.

48. (New) The apparatus of claim 46, further including an editing facility for receiving the recorded video program, and wherein the means for receiving the camera-control information forms part of the editing facility.

49. (New) The apparatus of claim 40, further including a first editing facility enabling an operator to edit the recorded video program and develop an edit decision list therefor.

50. (New) The apparatus of claim 49, further including a second editing facility for editing the video program source material in accordance with the edit decision list.